

CLAIMS

1. Optical device for a photographic camera (2), such as a camera, cine or video camera, which is positioned in the optical path (3) between a lens (4) at the start of the optical path (3) and an image recording device (5) of camera (2) at the end of optical path (3), comprising imaging optics (6) with a transparent, light-diffusing imaging surface (7) for rendering visible a real image of lens (4), and transmission optics (8) with a transmission lens (9) for imaging the real image of lens (4) on image recording device (5), characterized in that the imaging optics (6) are constituted by an imaging lens arrangement (10) containing a diffusing layer (14) of a light-diffusing substance, together with a lens, which with an outwardly curved surface (15) is in register with the diffusing layer, the imaging lens arrangement (10) having a half-power angle (θ) of equal to or small than 30° and larger than 10° .
2. Optical device according to claim 1, in which the half-power angle is smaller than 25° , particularly smaller than 22° .
3. Optical device according to claim 1 or 2, characterized in that the half-power angle (θ) is in the range between 20° and 15° inclusive.
4. Optical device according to one of the preceding claims, characterized in that the imaging lens arrangement comprises two transparent support bodies (11, 11') defining with plane-parallel, horizontal surfaces a gap (13) into which is introduced the light-diffusing substance in such a way that the diffusing layer (14) is received between the plane-parallel surfaces.
5. Optical device according to one of the preceding claims, characterized in that at least one of the support bodies is constructed as a lens block, so that the diffusing layer engages directly on a planar surface of the lens block.
6. Optical device according to one of the claims 4 or 5, characterized in that in the case of the imaging lens arrangement (10) the entry-side support body (11) is

constructed as a plane-parallel plate and the exit-side support body (11') as a planoconvex lens.

7. Optical device according to one of the claims 4 to 6, characterized in that the gap (13) between support bodies (11, 11') is less than 0.15 mm wide.

8. Optical device according to one of the claims 1 or 3, characterized in that the diffusing layer is a self-supporting layer.

9. Optical device according to one of the preceding claims, characterized in that the light-diffusing substance of the diffusing layer (14) in imaging lens arrangement (10) is a wax.

10. Optical device according to claim 9, characterized in that the wax is a mixture of paraffin and white beeswax.

11. Optical device according to claim 10, characterized in that the mixture contains approximately 2 to 60% white beeswax, preferably 5% beeswax.

12. Optical device according to one of the preceding claims, characterized in that the light-diffusing substance of the diffusing layer (14) contains paraffin.

13. Optical device according to one of the preceding claims, characterized in that, based on the size of the image recording device (5), the transmission lens (9) is constructed as a telephoto lens, particularly in the medium telephoto focal length range.

14. Optical device according to claim 13, characterized in that the telephoto lens is a zoom lens.

15. Optical device according to one of the preceding claims, characterized in that the optical device (1) is designed in such a way that, in the case of infinite focusing, the transmission lens (9) images sharply on the image recording device (5) the real image of the imaging surface (7).

16. Optical device according to claim 15, characterized in that a field lens (16) is positioned upstream of the transmission lens (9) for sharp imaging purposes in the case of infinite focussing.

17. Optical device according to one of the preceding claims, characterized in that a film support (18) replaceable more particularly by means of a bayonet joint (17) or screw joint is placed between lens (4) and imaging lens arrangement (10).

18. Optical device according to one of the preceding claims, characterized in that a field lens arrangement (19) is placed in the optical path (3) in optical device (1) directly behind the imaging lens arrangement (10).

19. Optical device according to one of the preceding claims, characterized in that behind the imaging lens arrangement (10) and in particular behind the field lens arrangement (19) a prism arrangement is provided in optical path (3) and supplies the image of imaging lens arrangement (10) rotated by 180°.

20. Optical device according to claim 19, characterized in that a roof or Schmidt prism (24) is provided as the prism arrangement.

21. Optical device according to one of the preceding claims, characterized in that at least part of the optical device (1) is constructed as an optical adapter (20) for replaceable connection to the photographic camera (2).

22. Optical device according to claim 21, characterized in that the optical adapter (20) is provided for fixing in the vicinity of the transmission lens (9) of the camera.